

APPENDIX 3
RIO GRANDE CORRIDOR PLANNING AREA
WILD AND SCENIC RIVERS STUDY

SUMMARY

The three phases of a Wild and Scenic River (WSR) Study are eligibility determination, classification analysis, and suitability assessment. In this report the Bureau of Land Management (BLM) evaluates the eligibility of 14 waterways within the New Mexico portion of the Rio Grande Corridor Planning Area for designation as Wild and Scenic Rivers (WSRs). Seven waterways have been determined to be ineligible and are dropped from further study. Seven waterways have met the criteria for eligibility, and tentative classifications of wild, scenic, or recreational have been assigned.

The BLM manages only small portions of the larger watersheds for five of the seven eligible and tentatively classified waterways. The agency must now coordinate with other landowners upstream to complete WSR studies. Two of the seven eligible and tentatively classified rivers—Rio Embudo and Bosque segment of the Rio Grande—are considered manageable waterways in and of themselves and are analyzed for suitability for inclusion in the National WSR System.

The purpose of the suitability study is to develop recommendations for the Rio Grande Corridor Coordinated Resource Management Plan/Environmental Impact Statement (CRMP/EIS) and to provide a basis for Congress to determine whether the two river segments should be added to the National WSRs system.

INTRODUCTION

BLM planning guidance suggests that WSR studies be completed for all waterways within the scope of a planning area. This study considers the following 14 waterways for inclusion in the WSRs system: Arroyo Hondo, Rito Cieneguilla, Piedra Lumbre Canyon, Tierra Amarilla Canyon, Agua Caliente Canyon, Cañada de Ojo Sarco, Rio de las Trampas, Cañada de Piedra Lumbre, Arroyo del Plomo, Cañada Comanche, Cañada del Agua, Cañada de las Marias, Rio Grande Bosque segment, and Rio Embudo Box.

The October 1988 Taos Resource Management Plan (RMP) requires that a 5-mile-long section of the Rio Embudo east of Dixon, New Mexico (from the Picuris Reservation to the mid-section line of Section 36, T. 23 N., R. 10 E.), generally referred to as the Rio Embudo Box, be evaluated for WSR designation. Public Law 103-242 (May 4, 1994) requires the BLM to study an 8-mile-long section of the Rio Grande north of Velarde, New Mexico (generally referred to as the "Rio Grande Bosque" segment, which is actually 7.6 miles long), from the west section line of Section 15, T. 23 N., R. 10 E. to the south line of the northwest quarter of Section 34, T. 23 N., R. 9 E., and to submit a report to the Congress within 3 years.

This report is a record of the WSR study process associated with the Rio Grande Corridor CRMP/EIS. It is not meant to be an environmental impact analysis but an examination of the river segments in relationship to the WSR eligibility/classification/ suitability criteria. The environmental analysis is discussed in Chapter 4 of the Draft CRMP/EIS.

Land use controls on private land are a matter of state and local zoning. Although the Wild and Scenic Rivers Act of 1968 includes provisions encouraging protection of river values through state and federal land use planning, these provisions are not binding on local governments.

The federal government is responsible for ensuring that management of designated rivers meets the intent of the act. In the absence of local or state river protection provisions, the federal government could ensure compliance through acquisition of private lands or interest in lands. The present surface land ownership in the Planning Area is approximately 50 percent public and 50 percent private.

The basic objective of WSR designation is to maintain the existing condition of a river. If a land use or development clearly threatens the outstandingly remarkable value(s) that resulted in designation of the river, efforts would be made to remove the threat through such actions as local zoning, land exchanges, or purchases from willing sellers. Agricultural and livestock grazing activities occurring at the time of designation would generally not be affected.

OVERVIEW OF THE THREE PHASES OF THE WSR STUDY PROCESS

The first phase of a WSR study is the eligibility determination, an analysis to see whether the river is eligible to be tentatively considered for WSR designation. To be eligible, the river must meet the criteria of being free-flowing and possessing one or more outstandingly remarkable values.

The second phase of the study is the classification analysis, which determines whether the river should be tentatively classified as a recreational, scenic, or wild river if it were designated by Congress. This tentative BLM classification is based on the level of development present in the river corridor.

The third phase of the study, the suitability assessment, consists of comparing alternative ways of managing the river. The suitability of a river for designation depends on the managing agency's ability to resolve key issues such as public access, long-term protection of resources and traditional resource uses.

PHASE ONE: THE ELIGIBILITY DETERMINATION

The purpose of an eligibility study is to determine whether a river meets the minimum requirements for addition to the national system. According to the Wild and Scenic Rivers Act, eligible river segments must be free flowing and, with their immediate environment, possess one or more outstandingly remarkable values, such as scenic, recreational, geologic, fish habitat, wildlife, historic, ecological or cultural resource values. "Free flowing" is defined as "existing or flowing in natural condition without impoundment, diversion, straightening, rip-rapping or other modification of the waterway that would encourage future construction of such structures." (Free flowing should not be confused with naturally flowing, a state in which a river flows without any upstream manipulation except by nature.) "Outstandingly remarkable values" are defined as natural and cultural resources that are either unique at a regional level or exemplary at the national level.

A determination that a river is eligible for designation does not lead immediately to a recommendation that it should be added to the system. The eligibility study simply determines whether the river should be carried into the classification and suitability phases of the study.

Table B-1 summarizes the comparative analysis of the scenic, geologic, recreational, fish habitat, wildlife, cultural, water quality and riparian resources for the rivers within the Planning Area (refer to Map 4). In the analysis, the BLM compared resource values of the rivers under study to similar features on other rivers in the region and identified values that are unique or exemplary. To be "unique," a resource or combination of resources must be one of a kind within a region. To be "exemplary," a resource must be one of the better examples of that type of resource at a national level.

Eligibility Evaluations of the Fourteen Waterways

Table B-2 summarizes the eligibility determinations of the fourteen waterways that were screened during the eligibility study. Seven waterways were found ineligible and dropped from further study. Seven waterways were found eligible and were assigned a tentative classification of wild, scenic, or recreational. The table is followed by narrative descriptions providing detailed explanations of the eligibility determinations. The tentative classifications are described in the next section.

Rio Grande Bosque

The Rio Grande Bosque segment is free flowing with no existing dams or other structures to modify the river

**RIO GRANDE CORRIDOR PLANNING AREA
WILD AND SCENIC RIVERS STUDY**

channel. Evidence exists of past water diversion into ditches, but no recent activity. Water is actively being diverted from the river in 12 places for use in orchards and other farming activities by motorized equipment and siphon hoses.

The Taos Resource Management Plan (RMP 1988) designated this stretch of river as a portion of the Racecourse Area of Critical Environmental Concern (CEC). The Bosque segment provides unusual fishing opportunity and outstanding scenic values. Fishing use is year round. Game fish include rainbow trout, brown trout, northern pike, catfish and small-mouth bass.

**TABLE B-1
COMPARISON OF RELATIVE RESOURCE VALUES OF RIVER SEGMENTS
WITHIN THE PLANNING AREA**

River Segment	Scenic	Geo- logic	Recre- ational	Fish Habitat	Wild- life	Cul- tural	Water Quality	Riparian
Rio Grande Upper Box (1968 designation)	1	1	2	1	3	2	3	4
Rio Grande Taos Box (1968 designation)	1	1	1	1	3	1	3	4
Rio Grande 12-mile Segment (1994 designation)	2	2	1	1	2	1	3	1
Rio Grande Bosque	2	4	3	1	3	2	3	2
Rio Embudo Box	1	2	1	2	1	3	3	3
Arroyo Hondo	1	2	2	4	2	4	2	2
Rito Cieneguilla	4	4	4	4	3	3	4	4
Piedra Lumbre Canyon	2	2	3	4	3	2	4	3
Tierra Amarilla Canyon	2	2	2	4	3	2	2	1
Agua Caliente Canyon	1	2	2	2	2	2	2	1
Cañada de Ojo Sarco	3	2	3	4	3	3	4	3
Rio de las Trampas	1	2	4	4	1	3	4	4

Notes: No outstandingly remarkable values were found for Rito Cieneguilla, Piedra Lumbre Canyon, Cañada de Piedra Lumbre, Arroyo del Plomo, Cañada Comanche, Cañada del Agua, or Cañada de las Marias.

Key to Ratings: 1 - Exemplary, one of the better examples of that type of resource at a national level.

2 - Unique, a resource or combination of resources that is one of a kind at a regional level.

3 - High quality at a regional and/or local level.

4 - A common resource at the regional and/or local level.

RIO GRANDE CORRIDOR PLANNING AREA
WILD AND SCENIC RIVERS STUDY

TABLE B-2 SUMMARY OF RIVER SEGMENT ELIGIBILITY AND TENTATIVE CLASSIFICATIONS		
River Segment	BLM Miles	Comments
Rio Grande Bosque	7.6	Found eligible for cultural, fish habitat, riparian and scenic values; tentative classification of Recreational.
Rio Embudo Box	5	Found eligible for geologic, recreational, fish habitat, wildlife and scenic values; tentative classification of Wild.
Arroyo Hondo	3	Found 1.2 miles free flowing and eligible for unique geologic value; tentative classification of Scenic.
Rito Cieneguilla	4.2	Not eligible—no outstandingly remarkable values found.
Piedra Lumbre Canyon	3.5	Not eligible—no outstandingly remarkable values found.
Tierra Amarilla Canyon	2.3	Found eligible for geologic, recreational, cultural, water quality, riparian and scenic values; tentative classification of Scenic.
Agua Caliente Canyon	2.9	Found eligible for geologic value; tentative classifications of Scenic (1 mile) and Wild (1.9 miles).
Cañada de Ojo Sarco	2.4	Found eligible for unique geologic values; tentative classification of Scenic.
Rio de las Trampas	1.3	Found eligible for geologic, wildlife and scenic values; tentative classification of Scenic.
Cañada de Piedra Lumbre	5.5	Not eligible—no outstandingly remarkable values found; dry wash.
Arroyo del Plomo	3.1	Not eligible—no outstandingly remarkable values found; dry wash.
Cañada Comanche	5.2	Not eligible—no outstandingly remarkable values found; dry wash.
Cañada del Agua	1.4	Not eligible—no outstandingly remarkable values found; dry wash.
Cañada de las Marias	0.7	Not eligible—no outstandingly remarkable values found; dry wash.

RIO GRANDE CORRIDOR PLANNING AREA
WILD AND SCENIC RIVERS STUDY

In considering the uniqueness of the Bosque segment, one might envision the transition from the designated wild section of the Rio Grande that runs from the Colorado border south through the Rio Grande Gorge. This segment, which ends at Taos Junction Bridge at the north end of the BLM's Orilla Verde Recreation Area, is pristine, rugged, rocky, narrow and steep. South to Pilar, a mostly residential community, the gorge then opens up to high rocky hills with a green belt of riparian vegetation on both sides of the river. From Pilar, the river canyon takes on a rocky character and continues south to the Rio Arriba-Taos County Line where the riparian vegetation zone is limited. The section of the river from the north end of the Orilla Verde Recreation Area to a mile below the County Line Recreation Site has been designated as scenic. Recreation facilities are interspersed along the two paved state highways that run the length of this river section.

South of the County Line Recreation Site, large cottonwoods and wide stretches of riparian cover begin to appear in what is known as the "Bosque" section. The floodplain broadens to support orchard and farming activities associated with small rural communities. Human modification to the environment is noticeable from the river. The scenic resources of the Bosque section are contrastingly different from other sections of river in the region because of the pastoral setting.

The scenic and cultural values of the Rio Grande Bosque segment are considered unique in the region, with no other river segment containing the free-flowing character in a pastoral setting. The opportunities for game fishing also set the Bosque segment apart from other river sections in the region (refer to Table B-1).

It is determined that the Rio Grande Bosque segment meets the criteria of being free flowing and possessing outstandingly remarkable cultural, fish habitat, riparian and scenic values. It thus meets the minimum eligibility requirements to be considered for addition to the national system.

Rio Embudo Box

The Rio Embudo Box is free flowing; no structures, diversions, or other developments were found to exist. This section of river also possesses a number of characteristics that are unique and exemplary in the region. The Taos RMP describes the Embudo Canyon ACEC as "an area where scenic values are exceptional . . . offers outstanding scenic and recreational opportunities . . . is important to wildlife . . . contains riparian habitat and a perennial stream . . . [an] ecosystem of high value due to its vegetative variety and year-round flowing water."

The Rio Embudo Box is a deep and narrow, incised canyon with rugged walls of sandstone, basalt, and granite that have been sculpted and shaped by natural forces to form an array of colors and form. The aquatic habitat contains brown and rainbow trout and Rio Grande sucker. Big-game species found on the rim and in the canyon include elk, deer, mountain lion, bear, and wild turkey. The vegetation represented is a complex type, lying between the Great Basin shrublands and the Great Basin shortgrass region. This segment is considered unique in the region because of its pristine variety of geologic and vegetative features, and associated scenic values (refer to Table B-1).

It is determined that the Rio Embudo Box meets the criteria of being free flowing and possessing outstandingly remarkable geologic, recreational, fish habitat, wildlife and scenic values. It thus meets the minimum eligibility requirements to be considered for addition to the national system.

Arroyo Hondo

The Arroyo Hondo is a free-flowing stream for about 1.2 miles above a diversion, a 10-inch steel pipe located approximately 3 miles upstream from the Arroyo Hondo's confluence with the Rio Grande. This diversion effectively dewateres the final 3 miles of this small stream during the summer months.

RIO GRANDE CORRIDOR PLANNING AREA
WILD AND SCENIC RIVERS STUDY

The Arroyo Hondo is a steep-walled canyon with a primitive road paralleling the stream for most of its length. The v-shaped canyon is cut first into basalt, then metamorphic rock as it ascends to the east. The aquatic habitat is limited because the stream is diverted in summer months, and is degraded by erosion from the road nearby. Riparian vegetation is limited but healthy. Vegetation in general is healthy and varies from piñon-juniper-oak to pine-spruce-fir-aspen. Big game species found in the area include elk, deer, mountain lion and wild turkey. This area is also a migratory corridor for elk and mule deer. The area is internationally known for the occurrence of the mineral staurolite as cruciform twinned crystals, or "fairy crosses."

It is determined that the Arroyo Hondo above the diversion meets the criteria of being free flowing and possessing outstandingly remarkable geologic, scenic, recreational, wildlife, water quality and riparian values. It thus meets the minimum eligibility requirements to be considered for addition to the national system.

Rito Cieneguilla

The Rito Cieneguilla consists of two segments. The segment on BLM land in Sections 25 and 26 (T. 24 N., R. 11 E.) consists of an intermittent, dry streambed with no impoundments. During periods of high precipitation, the river serves as a channel for runoff, as evidenced by the wide river bed and large granite river boulders and stones.

Historic photos indicate that the canyon was incised or cut because of a change in the vegetation at the head of the canyon and the historic road that runs near the river. This road served as the historic road to Taos before New Mexico Highway 68 (NM 68) was constructed.

The vegetation consists of piñon and juniper woodlands and the terrain is gentle rolling hills with scattered granite outcrops. Evidence of elk and mule deer exists.

The second segment parallels NM 68 in Sections 27 and 33 (T. 24 N., R. 11 E.). This segment contains human-made structures, including two bridges and three roads that cross the river. These access routes lead to residences on the eastern side of the river channel. A small power line that crosses the river provides electricity to two homes, and pipeline following the channel empties into a pond constructed next to the riverbed. NM 68 contains a large pullout with a solid waste transfer station and restrooms.

The portion of the river that enters private land in Section 27 contains several springs. The springs and channels are lined with watercress, cottonwoods and willow trees. The area with springs historically was called *Cieneguilla* or marsh. Apache Indians built wattle-and-daub (stick and mud) encampments in the area.

Continuing southwest along the highway, the river water continues to be supplied from numerous springs. It appears that a portion of the spring water is diverted at a constructed pond with an irrigation gate.

It is determined that the Rito Cieneguilla does not meet the criteria of being free flowing and possessing one or more outstandingly remarkable values. It thus does not meet the minimum requirements to be considered eligible for consideration as a Wild and Scenic River.

Piedra Lumbre Canyon

Piedra Lumbre Canyon contains an arroyo that has evidence of intermittent water flows. No structures, diversions or other developments exist. This arroyo does not have characteristics that are unique or exemplary.

Piedra Lumbre Canyon is a deep and narrow box canyon with steep walls of exposed bedrock. No aquatic species are evident in the dry arroyo. Big game species in the canyon include deer and elk. Vegetation in the area is common to this part of New Mexico. Piñon-juniper stands interspersed with sagebrush and grasses.

RIO GRANDE CORRIDOR PLANNING AREA
WILD AND SCENIC RIVERS STUDY

It is determined that Piedra Lumbre Canyon does not meet the criterion of possessing one or more outstandingly remarkable values. It thus does not meet the minimum requirements to be considered eligible for consideration as a Wild and Scenic River.

Tierra Amarilla Canyon

Tierra Amarilla Canyon is free flowing with no structures, diversions or other developments existing along the drainage. At the time of the field inspection water was flowing in the drainage. The stream originates on U.S. Forest Service lands approximately 2 miles above the BLM boundary.

This is a deep and narrow box canyon with steep walls of exposed bedrock. Aquatic species are not evident even though water exists in the drainage. Big game species in the canyon include deer and elk. Vegetation ranges from piñon-juniper woodlands to ponderosa pine and aspen forests as elevation is gained. Willows and thick vegetation are abundant along the river banks.

Tierra Amarilla Canyon is considered to be a unique river segment containing a pristine variety of box canyon geologic and riparian vegetative features associated with scenic values (refer to Table B-1).

It is determined that Tierra Amarilla Canyon meets the criteria of being free flowing and possessing outstandingly remarkable geologic, recreational, cultural, water quality, riparian and scenic values. It thus meets the minimum eligibility requirements to be considered for addition to the national system.

Agua Caliente Canyon

Agua Caliente Canyon is free flowing as no structures, diversions or other developments exist. The stream begins on U.S. Forest Service lands approximately .2 miles above the BLM boundary. The 2.5 miles of stream located on BLM and state lands possess a number of characteristics that are unique to the region. The stream is situated off NM 68 about a half mile northeast of the Village of Pilar. The river flows northwest and enters private land approximately .2 miles southeast of NM 68. The stream flows into the dry Rito Cieneguilla just before the river travels under the highway. The Rito Cieneguilla then crosses about a half mile of private land before it enters the Rio Grande.

The lower portion of Agua Caliente Canyon has been used for irrigation since the eighteenth century. The majority of this stream segment lies within the Agua Caliente ACEC, which was established because of the stream's potential for cutthroat trout reintroduction.

Agua Caliente Canyon is a perennial stream containing waterfalls and pools. A jeep trail begins on the private land off NM 68 and parallels the stream for a mile, where it terminates at an open meadow. No indication of livestock grazing is evident.

The stream traverses cottonwoods and piñon-juniper woodlands, and as the elevation increases from 6,200 feet to 6,600 feet, the river enters ponderosa pine and aspen forests. Willows and thick vegetation are abundant along the streambed. Evidence exists of a small fire that scorched and destroyed several ponderosa pines, along with axe cutting of a small aspen stand.

Elk and deer are found in the canyon. Historically, beavers thrived and built lodges that trapped sediment; however, the beaver population has disappeared. Currently, the sediment is being deposited into an irrigation reservoir located on private land near the confluence of the Rito Cieneguilla and the Rio Grande.

Historically the stream contained Rio Grande cutthroat trout, but some time after 1958 these fish disappeared. Rainbow trout are currently found in Agua Caliente Canyon, and it is still potential habitat for the native cutthroat

RIO GRANDE CORRIDOR PLANNING AREA
WILD AND SCENIC RIVERS STUDY

trout. Along the entire stream is riparian habitat that consists of cottonwoods and willows.

As noted above for the Rito Cieneguilla, the area around Pilar was historically called *El Cieneguilla* or marsh. Apache Indians built wattle-and-daub (stick and mud) encampments here.

Agua Caliente Canyon is considered an excellent example of a stream segment containing several waterfalls and pools. The streambed cuts through a deep granite canyon and winds to the south before flowing northwest to the Rito Cieneguilla, which flows into the Rio Grande. The broken undulating outcrops in Section 3 (T. 23 N., R. 11 E.) rise to about 400 feet in elevation with outstanding geologic resources (refer to Table B-1).

It is determined that Agua Caliente Canyon meets the criteria of being free flowing and possessing a variety of outstandingly remarkable values. It thus meets the minimum eligibility requirements to be considered for addition to the national system.

Cañada de Ojo Sarco

Cañada de Ojo Sarco is free flowing; no structures, diversions, or other developments exist within the study segment. This 2-mile-long stream section (Section 6, T. 22 N., R. 11 E.; Section 1, T. 22 N., R. 10 E.; Section 36, T. 23 N., R. 10 E.) is located just south of the Warm Springs Special Management Area and the Embudo Canyon ACEC, north of County Road (CR) 75. The confluence of the Ojo Sarco and the Rio Embudo is on private land in Section 36 (T. 23 N., R. 10 E.), about a quarter mile north of the BLM boundary.

The Ojo Sarco is a perennial stream that contains a waterfall flanked with granite walls. The vegetation represented is a complex type, lying between the Great Basin shrublands and Great Basin shortgrass region. Cottonwoods line portions of the streambed. Many small mammals and species of birds are associated with the riparian zone. Big game species found on the rim along the stream include elk, deer, and wild turkey.

The Cañada de Ojo Sarco originates on U.S. Forest Service lands approximately 13 miles above the BLM boundary. Small communities upstream from the study area use the water for irrigation, during which the stream can be entirely diverted before it reaches the Rio Embudo. The Picuris Pueblo Indians were probably early visitors to this area.

The 2-mile-long segment of Cañada de Ojo Sarco possesses a number of characteristics unique to the region (refer to Table B-1). It is considered the best example of a stream segment containing a 50-foot-long waterfall flowing over granite blocks, a north-facing granite cliff, a small granite canyon near the confluence with Embudo Creek and arroyo-style bank cutting.

It is determined that the Cañada de Ojo Sarco meets the criteria of being free flowing and possessing outstandingly remarkable geologic values. It thus meets the minimum eligibility requirements to be considered for addition to the national system.

Rio de las Trampas

The Rio de las Trampas is a stream that passes through three small communities where water is removed for irrigation. In dry years the stream may be completely diverted for this purpose.

The Trampas has its source in the Sangre de Cristo Mountains on U.S. Forest Service lands, flows through several parcels of private land, then onto BLM lands where it enters a granite canyon in the final mile above its confluence with the Rio Embudo (the *Lower Trampas*). The aquatic habitat is at risk because the entire streamflow could be diverted for irrigation.

RIO GRANDE CORRIDOR PLANNING AREA WILD AND SCENIC RIVERS STUDY

The Rio de las Trampas flows in a steep-walled granite canyon. A primitive road is nearby in one location. Big game species found in the area include elk, deer, mountain lion, and wild turkey. Vegetation is healthy and is of the piñon-juniper-ponderosa pine type. The final mile of the Rio de las Trampas is a good example of an upland stream containing outstanding geologic features and associated scenic values (refer to Table B-1).

It is determined that the Rio de las Trampas meets the criteria of being free flowing and possessing outstandingly remarkable geologic, wildlife and scenic values. It thus meets the minimum eligibility requirements to be considered for addition to the national system.

Cañada de Piedra Lumbre, Arroyo del Plomo, Cañada Comanche, Cañada del Agua and Cañada de las Marias

These waterways are dry washes that contain water only during wet weather, including floods. They contain no resource values that are unique in the region. It is determined that these waterways do not meet the criteria of being free flowing and possessing one or more outstandingly remarkable values. Thus, they do not meet the minimum eligibility requirements to be considered for addition to the national system.

PHASE TWO: THE CLASSIFICATION ANALYSIS

The classification analysis determines whether a river should be tentatively classified as recreational, scenic, or wild. This determination is based on the level of development present in the river corridor as it exists at the time of the study. The determining factors include waterway development, shoreline modification and vehicular access.

The three classification categories for eligible rivers are defined as follows.

Wild River Areas

Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.

Scenic River Areas

Those rivers or sections of rivers that are free of impoundments with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.

Recreational River Areas

Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

A wild river would be an undeveloped river with very limited access. A scenic classification would be applied to a river or river segment that is more developed than a wild river and less developed than a recreational river. A recreational classification would be appropriate in developed areas, such as a river running parallel to roads or railroads with adjacent lands that have agricultural, forestry, commercial or other developments, provided that the waterway remains generally natural and riverine in appearance. Attributes of each category are listed in Table B-3.

It is a common misunderstanding that rivers designated as scenic are managed primarily for scenery, and that recreational rivers are managed to promote recreation use. These labels can be misleading. Regardless of the classification, management is designed to maintain or enhance the river-related values and character of the river.

RIO GRANDE CORRIDOR PLANNING AREA
WILD AND SCENIC RIVERS STUDY

Rio Grande Bosque

The Rio Grande Bosque segment best matches the classification category of recreational, compared to the classification of other designated wild and scenic river segments in the region. The river corridor contains an adjacent highway, highway turnoffs, residential housing, bridges across the river, and pipelines, similar to the scenic section of the Lower Gorge immediately to the north. However, the character of the developments differs in the Bosque because shoreline modification is intensified and more visible from the river and the highway, waterway development includes diversions but not modifications to natural water flow, increased levels of vehicular access exist, and commercial businesses occur in the river corridor. In addition, numerous utility lines cross the river, household and commercial trash is present, mechanized noise levels are somewhat increased, and human-made structures and modifications to the natural environment are more visible. The BLM recommends a tentative classification of recreational for the Rio Grande Bosque.

Rio Embudo Box

The Rio Embudo Box best matches the classification category of wild, compared to the classifications of other designated wild and scenic rivers in the region. The river is free of impoundments and is currently inaccessible by vehicle. The few vehicular trails that do appear on the rim within a quarter mile of the river become single-track hiking trails that allow access into the box canyon and the river. No other human developments exist within a quarter mile of the river. The BLM recommends a tentative classification of wild for the Rio Embudo Box.

Arroyo Hondo

The Arroyo Hondo best matches the classification category of scenic, compared to the classifications of other designated wild and scenic rivers in the region. The river is predominantly free of diversions and accessible by vehicle. No other human developments exist within a quarter mile of the river. The BLM recommends a tentative classification of scenic for the Arroyo Hondo.

Tierra Amarilla Canyon

Tierra Amarilla Canyon best matches the classification category of scenic, compared to the classifications of other designated wild and scenic rivers in the region. The river is free of impoundments and contains an existing trail network that has not been used for a number of years. No human development occurs along the drainage other than an unauthorized cabin that is uninhabitable. The BLM tentatively recommends a classification of scenic for Tierra Amarilla Canyon.

Agua Caliente Canyon

Agua Caliente Canyon best matches the classification categories of scenic and wild, compared to the classifications of other designated wild and scenic rivers in the region. The stream is free of impoundments. From U.S. Highway 68, the two-track road parallels the stream enters private land and continues onto BLM land for approximately a mile southeast, ending at a riverside trailhead in an open meadow. This segment of the river contains arroyo-type banks and two small wooden logs serving as foot bridges across the river. The BLM tentatively recommends a classification of scenic for this portion of the Agua Caliente Canyon.

Beyond the meadow, a small game/foot trail continues up the stream but disappears as the canyon narrows. This portion is considered wild. The setting is ponderosa pine and aspen forests. Small dry tributaries enter north and south of the stream. The stream ravine takes on a rocky character and contains a green belt of riparian vegetation. Numerous small pools and ripples provide a desirable habitat for fish. The BLM recommends a tentative classification of wild for the portion of Agua Caliente Canyon that flows through Sections 2 (state) and 3 (BLM; T. 23 N., R. 11 E.) to the riverside trailhead in Section 3.

RIO GRANDE CORRIDOR PLANNING AREA
WILD AND SCENIC RIVERS STUDY

Cañada de Ojo Sarco

Cañada de Ojo Sarco best matches the classification category of scenic, compared to the designations of other designated wild and scenic rivers in the region. CR 75 parallels the Ojo Sarco on the south, although it crosses the river in two places. A few vehicular trails/roads leave CR 75 within a quarter mile of the river. These trails/roads allow access to the river.

The Ojo Sarco flows into Embudo Creek near the Village of Cañoncito. The 2-mile-long study segment of the stream crosses two sections of BLM land, one section of state land, and near the confluence with Embudo Creek enters private land. No other developments exist within a quarter mile of the stream. Household and commercial trash is present along the bank and in the streambed, and noise levels are somewhat increased due to the proximity of CR 75. The BLM recommends a tentative classification of scenic for the 2-mile-long segment above the confluence with Embudo Creek.

**TABLE B-3
ATTRIBUTES OF THE THREE RIVER CLASSIFICATIONS FOR INCLUSION
IN THE NATIONAL WILD AND SCENIC RIVERS SYSTEM**

Wild	Scenic	Recreational
Free flowing. Low dams, diversion works, or other minor structures that do not cause flooding of the natural riverbank may not bar consideration. Future construction is restricted.	Free flowing. Low dams, diversion works, or other minor structures that do not cause flooding of the natural riverbank may not bar consideration. Future construction is restricted.	May have undergone some impoundment or diversion in the past. Water should not have characteristics of an impoundment for any significant distance. Future construction is restricted.
Generally inaccessible by road. One or two inconspicuous roads to the area may be permissible.	Accessible by roads that may occasionally bridge the river area. Short stretches of inconspicuous and well-screened roads or railroads paralleling the river area may be permitted.	Readily accessible with likelihood of paralleling roads or railroads along riverbanks and bridge crossings.
Shoreline is essentially primitive. One or two inconspicuous dwellings and land devoted to production of hay may be permitted. Watershed is natural in appearance.	Shoreline is largely primitive. Small communities are limited to short reaches of the total area. Agricultural practices that do not adversely affect the river area may be permitted.	Shoreline may be extensively developed.
Water quality meets minimum criteria for primary contact recreation, except where such criteria would be exceeded by natural background conditions and esthetics. Capable of supporting propagation of aquatic life normally adapted to the habitat of the stream.	Water quality should meet minimum criteria for desired types of recreation, except where such criteria would be exceeded by natural background conditions and esthetics. Capable of supporting propagation of aquatic life normally adapted to the habitat of the stream, or capable and being restored to that quality.	Water quality should meet minimum criteria for desired types of recreation, except where such criteria would be exceeded by natural background conditions and esthetics. Capable of supporting propagation of aquatic life normally adapted to the habitat of the stream, or capable and being restored to that quality.

RIO GRANDE CORRIDOR PLANNING AREA WILD AND SCENIC RIVERS STUDY

Rio de las Trampas

The final mile of the Rio de las Trampas best matches the classification category of scenic, compared to other designated wild and scenic rivers in the region. The river is free of diversions in this section and accessible by vehicle in one area. An old, shallow (10-foot-deep) mine shaft lies within a quarter mile of the river. The BLM recommends a tentative classification of scenic for the Rio de las Trampas.

PHASE THREE: THE SUITABILITY ASSESSMENT

The third component of a WSR study is the suitability assessment. It is designed to identify the impacts of designation and manageability of eligible rivers. The portion of the suitability assessment contained in this report identifies issues to be considered in the environmental consequences section (Chapter 4). In addition, the willingness of county, state and local landowners to participate in river corridor management is considered. These aspects of the suitability assessment are also considered in Chapter 4.

Criteria for Determining Suitability

In considering suitability, the criteria specified in Section 4a of the Wild and Scenic Rivers Act (listed below) provide a basis for assessment.

- \$ Characteristics that do or do not make the river corridor a worthy addition to the WSR system
- \$ Current status of land ownership and uses in the area
- \$ Reasonably foreseeable potential uses of the land and water that would be enhanced, foreclosed or curtailed if the river were designated
- \$ Public, state, local or other interests in designation or nondesignation of the river
- \$ Estimated costs of acquiring necessary lands and interests in lands, and of administering the river if designated
- \$ Ability of the agency to manage the river and protect identified values
- \$ Historical or existing rights that would be adversely affected by designation
- \$ Other issues and concerns identified in the land-use planning process

Rio Grande Bosque

River Values/Characteristics

The Rio Grande Bosque segment provides an unusual fishing opportunity and outstanding scenic values. Fishing use is year-round; game fish include rainbow trout, brown trout, northern pike, catfish, and small-mouth bass. The scenic and cultural values of the Rio Grande Bosque are considered unique in the region, with no other river segment containing its free-flowing character in a pastoral setting. The opportunities for game fishing also set the Bosque apart from other river sections in the region.

Land Ownership and Uses

Land ownership is approximately 50 percent private and 50 percent BLM (public). Private land is associated with the communities of Rinconada, La Bolsa, La Junta, La Cienega, and Embudo.

The predominant use of private land within the river corridor is residential and agricultural, including orchards. Major uses of the public lands within the corridor are river access, fishing, river boating, sightseeing and general dispersed recreation activities.

RIO GRANDE CORRIDOR PLANNING AREA
WILD AND SCENIC RIVERS STUDY

Potential Uses of Land and Water Resources

Hydroelectric power facilities would not be allowed and designation could preclude new diversions or structures. Other potential surface-disturbing uses of the public land and water resources in the river corridor would be constrained by designation to protect scenic quality. Designation could impact private development indirectly by influencing local planning and zoning.

Interest in Designation

During public scoping, the local communities and river conservation organizations expressed positive interest in designating the Bosque segment as an addition to the Rio Grande WSR.

Estimated Costs of Acquisition and Administration

The initial cost associated with designation would be limited to mapping and printing documentation of the wild and scenic river process. Future costs would depend on the level of threats to river-related values and are foreseen to result from the need for regulatory and educational signing, improved access, road closures/barriers, patrol and enforcement, biological and social inventories, and use permitting systems. In addition, approximately 1,165 acres of private land could be acquired if the owners were willing to sell.

Ability to Manage/Protect River Values

Recognition as a wild and scenic river would aid the BLM in managing and protecting the river-related values should development or other threats to the recognized values be proposed in the future.

Adverse Effects on Historical/Existing Rights

No adverse effects on historical and valid existing rights are expected as the result of designation of the Rio Grande Bosque as wild and scenic.

Other Issues and Concerns

The intent of designation would be to preserve the existing river-related values. This would benefit traditional uses of the Rio Grande Bosque such as fishing and boating in a pastoral setting.

Rio Embudo Box

River Values/Characteristics

The scenic values in the area of the Rio Embudo Box are exceptional. The area offers outstanding scenic and recreational opportunities. It is important to wildlife, contains riparian habitat and a perennial stream, and the ecosystem is of high value because of its vegetative variety and year-round flowing water. The stream lies in a deep and narrow box canyon with rugged walls of sandstone, basalt, and granite that were sculpted and shaped by natural forces to form an array of colors and forms. The aquatic habitat contains brown and rainbow trout and Rio Grande sucker. Big game species found on the rim and in the canyon include elk, deer, mountain lion, bear, and wild turkey. The vegetation represented is complex, lying between the Great Basin shrublands and Great Basin shortgrass types.

Land Ownership and Uses

Land ownership is estimated to be 64 percent BLM and 36 percent state. No developments exist within the river corridor, and land use is considered to be in a primitive natural state. Hiking and fishing are the known predominant uses.

RIO GRANDE CORRIDOR PLANNING AREA
WILD AND SCENIC RIVERS STUDY

Potential Uses of Land and Water Resources

Designation would preclude hydroelectric power facilities, new diversions or structures, mining, and mineral leasing. Other potential surface-disturbing uses of the river corridor's land and water resources would be precluded by designation, where needed to protect scenic quality.

Interest in Designation

During scoping, local communities showed a positive interest in designating the Rio Embudo Box as a WSR.

Estimated Costs of Acquisition and Administration

Initial costs associated with designation would be limited to mapping and printing documentation of the wild and scenic river process. Future costs may result from regulatory and educational signing as well as the acquisition of about 550 acres of state land.

Ability to Manage/Protect the River Values

Recognition of the Rio Embudo Box as a WSR would aid the BLM in managing and protecting the river-related values should development or other threats be proposed in the future.

Adverse Effects on Historical/Existing Rights

No known or foreseen adverse effects on historical and valid existing rights would occur as the result of designation.

Other Issues and Concerns

The intent of designation would be to preserve the existing river-related values. This would benefit traditional uses of the Rio Embudo Box such as fishing, backcountry uses that rely on a natural setting, and the local cultural activities that depend on them.

SUITABILITY SUMMARY

***Arroyo Hondo, Tierra Amarilla Canyon, Agua Caliente Canyon,
Cañada de Ojo Sarco, and the Rio de las Trampas***

These five streams originate on U.S. Forest Service lands. The BLM will complete suitability assessments for these stream segments within the next few years in coordination with the Carson National Forest.

Rio Grande Bosque

The foreseen impacts of designating this segment as a WSR depend on one's point of view. Preserving the existing and sensitive natural and cultural values would require a cautious approach to any proposed development or use that would negatively affect the fabric of the adjacent community and/or ecosystem. On the other hand, limiting high-impact uses and developments would negatively impact users who seek developments and uses that are not compatible with preserving existing values. For those uses that are compatible with preserving existing values, the designation would be beneficial.

An increase in river-related uses such as boating and fishing could be expected, as trends show overall river use has been and will continue to increase, both regionally and nationally.

Designation in and of itself is not to cause a significant increase in river use, because better known, accessible opportunities also exist upstream. The degree of protection provided for under the legislation would call

RIO GRANDE CORRIDOR PLANNING AREA
WILD AND SCENIC RIVERS STUDY

greater attention to management of the river, as the result of the Bosque segment being acknowledged as nationally significant.

Overall, designation is well suited to the existing river-related uses and cultural values of the local communities. These communities are definitely interested in participating in river corridor management.

Rio Embudo Box

The foreseen impact of designating this segment as a WSR is minimal. The ruggedness of this landscape would naturally dissuade most people from considering any developments not compatible with the wild nature of the environment, because such ventures would be costly.

Designation is not expected to cause an increase in river-related visitor use. The rugged countryside and character of waterflow in this segment of the river channel are natural deterrents to most existing uses.

The degree of protection provided for under the legislation would enhance preservation of the existing resource values and compatible uses.

Overall, the designation is well suited to the existing natural and cultural environment, and complimentary to public comments received over the last few years.

Suitability Findings

The above analyses of river suitability criteria are based on current knowledge of resource issues and public involvement. Chapter 2 of the Proposed Plan provides suitability recommendations. Comments on the Draft Plan were considered in arriving at a recommendation on whether these river segments are suitable for inclusion in the National WSR System. No opposition to recommending the Rio Embudo Box as wild was expressed through either written or oral comment during the public comment period on the preliminary recommendations. The primary topics of concern raised during the comment period on the preliminary recommendation for the Rio Grande Bosque segment were its tentative classification as recreational and condemnation of private lands within the boundary of this river area. Classification categories for various river segments were completed as per direction of the BLM Manual 8351. The Bosque segment was classified based on the type and degree of human developments associated with the river and adjacent lands that existed at the time the evaluation was performed. In response to the other concern about condemnation of private land, as outline in the Proposed Plan, BLM would seek to acquire selected lands by purchase, easement, or donation if the landowners were willing. In addition, if 50 percent or more of the entire acreage is owned in fee title by the United States, BLM would not be authorized to acquire fee title to any lands by condemnation under the authority of the Wild and Scenic Rivers Act. Currently 50 percent (1,100 acres of the total 2,187 acres) of the acreage in the Bosque segment is owned in fee title by the United States.

This report finds the Rio Grande Bosque and the Rio Embudo Box suitable to be considered for inclusion in the National WSR System. The Rio Grande Bosque is tentatively classified as recreational and the Rio Embudo Box as wild. Until Congress decides whether to add these river sections to the system, the BLM will manage them to preserve the river-related values identified in this report.

RIO GRANDE CORRIDOR PLANNING AREA
WILD AND SCENIC RIVERS STUDY

MANAGEMENT OF SUITABLE RIVER SEGMENTS

The following is a general summary of BLM's management direction to be taken for the Rio Grande Bosque and the Rio Embudo Box. Refer to Chapters 2, 3 and 4 for specific actions proposed. The BLM would work with Taos and Rio Arriba counties to develop local land use plans to meet the objectives of the Wild and Scenic Rivers Act.

Rio Grande Bosque

Under Final Plan guidelines, this segment is recommended as a WSR with a recreational classification and will be managed according to the following prescriptions:

- \$ the segment will be withdrawn from the public land laws and mineral entry, and closed to mineral material disposal and to mineral leasing
- \$ any unplanned fires will be fully suppressed
- \$ VRM Class II designation will be applied
- \$ selected private lands will be acquired if landowners are willing to sell
- \$ grazing will be excluded from the riparian and wetland areas
- \$ new rights-of-way will be excluded unless necessary for administration of recreation sites to improve access to these sites, or to provide access/utility service to private or state lands where such access was otherwise not possible; utilities will be underground only, and will be co-located with roads
- \$ vehicles will be limited to designated roads and trails (see Map 6 and Table 3-1)
- \$ BLM will work with Taos and Rio Arriba counties to develop local land use plans to meet the objectives of the Wild and Scenic Rivers Act

Rio Embudo Box

Under Final Plan guidelines, this segment is recommended as a WSR with a wild classification and will be managed according to the following Copper Hill ACEC prescriptions:

- \$ woodland and forestry resources will be managed to enhance wildlife habitat, ecosystem health, and scenic values
- \$ vehicles will be limited to designated roads and trails (see Map 6 and Table 3-1)
- \$ state and private lands within the area will be acquired by purchase or exchange with willing owners
- \$ VRM Class I designation will apply
- \$ grazing will be excluded
- \$ the area will remain withdrawn from public land laws and mineral entry, and closed to mineral leasing and mineral material disposal
- \$ new rights-of-way will be excluded